

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application Of: Shim, et al.

Group No.: TBD

Serial No.: 10/550,525

International Application No.: PCT/US04/09570

Docket No. 050508-1370

International Filing Date: March 26, 2004

For: **CXCR4 Antagonists and Methods of Their Use**

STATEMENT REGARDING SEQUENCE LISTING COMPLYING WITH
STANDARD

Commissioner for Patents
Mail Stop Sequence Listing
PO Box 1450
Alexandria, VA 22313-1450

Sir:

The information recorded in computer readable form on the attached disk is identical to the written (on paper) sequence listing of the above-referenced application.

Respectfully submitted,



Christopher B. Linder; Reg. No. 47,751
Attorney for Applicant

**THOMAS, KAYDEN, HORSTEMEYER
& RISLEY, L.L.P.**
Suite 1750
100 Galleria Parkway, N.W.
Atlanta, GA 30339-5948
Telephone: (770) 933-9500
Facsimile: (770) 951-0933

SEQUENCE LISTING

<110> Emory University
 <120> CXCR4 Antagonists and Methods of Their Use
 <130> 50508-1370
 <140> 2520406
 <141> 2004-03-26
 <160> 20
 <170> PatentIn version 3.3
 <210> 1
 <211> 14
 <212> PRT
 <213> Artificial
 <220>
 <223> sequence of T140
 <220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> X = Nal
 <220>
 <221> MISC_FEATURE
 <222> (8)..(8)
 <223> X = dLys
 <220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> X = Cit
 <400> 1
 Arg Arg Xaa Cys Tyr Arg Lys Xaa Pro Tyr Arg Xaa Cys Arg
 1 5 10
 <210> 2
 <211> 14
 <212> PRT
 <213> Artificial
 <220>
 <223> sequence of TN14003
 <220>
 <221> MISC_FEATURE
 <222> (3)..(3)

<223> X = Nal

<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> X = Cit

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> X = dLys

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> X = Cit

<400> 2

Arg Arg Xaa Cys Tyr Xaa Lys Xaa Pro Tyr Arg Xaa Cys Arg
1 5 10

<210> 3

<211> 18

<212> PRT

<213> Artificial

<220>

<223> sequence of T22

<400> 3

Arg Arg Trp Cys Tyr Arg Lys Cys Tyr Lys Gly Tyr Cys Tyr Arg Lys
1 5 10 15

Cys Arg

<210> 4

<211> 21

<212> DNA

<213> Artificial

<220>

<223> cDNA sequence segments of CXCR4

<400> 4

aataaaatct tcctgcccac c

21

<210> 5

<211> 21

<212> DNA

<213> Artificial

<220>
 <223> cDNA sequence segments of CXCR4

 <400> 5
 aaggaagctg ttggctgaaa a 21

 <210> 6
 <211> 19
 <212> DNA
 <213> Artificial

 <220>
 <223> CXCR4 cDNA target sequence

 <400> 6
 taactacacc gaggaatg 19

 <210> 7
 <211> 19
 <212> DNA
 <213> Artificial

 <220>
 <223> CXCR4 cDNA target sequence

 <400> 7
 tcttcttaac tggcattgt 19

 <210> 8
 <211> 19
 <212> DNA
 <213> Artificial

 <220>
 <223> CXCR4 cDNA target sequences

 <400> 8
 tctttgccaa cgtcagtga 19

 <210> 9
 <211> 19
 <212> DNA
 <213> Artificial

 <220>
 <223> CXCR4 cDNA target sequences

 <400> 9
 gtttcagcac atcatggtt 19

 <210> 10

<211> 19
 <212> DNA
 <213> Artificial

 <220>
 <223> CXCR4 cDNA target sequence

 <400> 10
 catcatgggtt ggccttatc 19

<210> 11
 <211> 19
 <212> DNA
 <213> Artificial

 <220>
 <223> CXCR4 cDNA target sequences

 <400> 11
 tcctgcctgg tattgtcat 19

<210> 12
 <211> 19
 <212> DNA
 <213> Artificial

 <220>
 <223> CXCR4 cDNA target sequences

 <400> 12
 tcctgtcctg ctattgcat 19

<210> 13
 <211> 19
 <212> DNA
 <213> Artificial

 <220>
 <223> CXCR4 cDNA target sequences

 <400> 13
 gcatcgactc cttcatcct 19

<210> 14
 <211> 19
 <212> DNA
 <213> Artificial

 <220>
 <223> CXCR4 cDNA target sequences

 <400> 14
 ggaaagcgag gtggacatt 19

<210> 15
<211> 25
<212> DNA
<213> Artificial

<220>
<223> siRNA

<400> 15
aauaaaaucu uccugcccac cdttdt

25

<210> 16
<211> 25
<212> DNA
<213> Artificial

<220>
<223> siRNA

<400> 16
aaggaagcug uuggcugaaa adtdt

25

<210> 17
<211> 20
<212> DNA
<213> Artificial

<220>
<223> CXCR4-specific primers

<400> 17
gaaccctgtt tccgtgaaga

20

<210> 18
<211> 20
<212> DNA
<213> Artificial

<220>
<223> CXCR4-specific primers

<400> 18
cttgtccgtc atgcttctca

20

<210> 19
<211> 20
<212> DNA
<213> Artificial

<220>
<223> primer

<400> 19
gacaggatgc agaaggagat

20

<210> 20
<211> 20
<212> DNA
<213> Artificial

<220>
<223> primer

<400> 20
tgcttgctga tccacatctg

20

Sequence Listing.ST25
SEQUENCE LISTING

<110> Emory University

<120> CXCR4 Antagonists and Methods of Their Use

<130> 50508-2331

<140> 2520406

<141> 2004-03-26

<160> 20

<170> PatentIn version 3.3

<210> 1

<211> 14

<212> PRT

<213> Artificial

<220>

<223> sequence of T140

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> X = NaI

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> X = dLys

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> X = Cit

<400> 1

Arg Arg Xaa Cys Tyr Arg Lys Xaa Pro Tyr Arg Xaa Cys Arg
1 5 10

<210> 2

<211> 14

<212> PRT

<213> Artificial

<220>

<223> sequence of TN14003

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> X = NaI

<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> X = Cit

Sequence listing.ST25

<220>
 <221> MISC_FEATURE
 <222> (8)..(8)
 <223> X = dLys

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> X = Cit

<400> 2

Arg Arg Xaa Cys Tyr Xaa Lys Xaa Pro Tyr Arg Xaa Cys Arg
 1 5 10

<210> 3
 <211> 18
 <212> PRT
 <213> Artificial

<220>
 <223> sequence of T22

<400> 3

Arg Arg Trp Cys Tyr Arg Lys Cys Tyr Lys Gly Tyr Cys Tyr Arg Lys
 1 5 10 15

Cys Arg

<210> 4
 <211> 21
 <212> DNA
 <213> Artificial

<220>
 <223> cDNA sequence segments of CXCR4

<400> 4
 aataaaatct tcctgcccac c

21

<210> 5
 <211> 21
 <212> DNA
 <213> Artificial

<220>
 <223> cDNA sequence segments of CXCR4

<400> 5
 aaggaagctg ttggctgaaa a

21

<210> 6
 <211> 19
 <212> DNA
 <213> Artificial

Sequence Listing.ST25

```

<220>
<223> CXCR4 cDNA target sequence

<400> 6
taactacacc gaggaaatg
19

<210> 7
<211> 19
<212> DNA
<213> Artificial

<220>
<223> CXCR4 cDNA target sequence

<400> 7
tcttcttaac tggcattgt
19

<210> 8
<211> 19
<212> DNA
<213> Artificial

<220>
<223> CXCR4 cDNA target sequences

<400> 8
tctttgccaa cgtcagtga
19

<210> 9
<211> 19
<212> DNA
<213> Artificial

<220>
<223> CXCR4 cDNA target sequences

<400> 9
gtttcagcac atcatgggtt
19

<210> 10
<211> 19
<212> DNA
<213> Artificial

<220>
<223> CXCR4 cDNA target sequence

<400> 10
catcatgggtt ggccttatc
19

<210> 11
<211> 19
<212> DNA
<213> Artificial

<220>
<223> CXCR4 cDNA target sequences

```

Sequence listing.ST25

<400> 11		
tcctgcctgg tattgtcat		19
<210> 12		
<211> 19		
<212> DNA		
<213> Artificial		
<220>		
<223> CXCR4 cDNA target sequences		
<400> 12		
tcctgtcctg ctattgcat		19
<210> 13		
<211> 19		
<212> DNA		
<213> Artificial		
<220>		
<223> CXCR4 cDNA target sequences		
<400> 13		
gcatcgactc cttcatcct		19
<210> 14		
<211> 19		
<212> DNA		
<213> Artificial		
<220>		
<223> CXCR4 cDNA target sequences		
<400> 14		
ggaaagcgag gtggacatt		19
<210> 15		
<211> 25		
<212> DNA		
<213> Artificial		
<220>		
<223> siRNA		
<400> 15		
aauaaaau cu uccugcccac cdt dt		25
<210> 16		
<211> 25		
<212> DNA		
<213> Artificial		
<220>		
<223> siRNA		
<400> 16		
aaggaagcug uuggcugaaa adt dt		25

Sequence listing.ST25

<210> 17
 <211> 20
 <212> DNA
 <213> Artificial

<220>
 <223> CXCR4-specific primers

<400> 17
 gaaccctggt tccgtgaaga 20

<210> 18
 <211> 20
 <212> DNA
 <213> Artificial

<220>
 <223> CXCR4-specific primers

<400> 18
 cttgtccgtc atgcttctca 20

<210> 19
 <211> 20
 <212> DNA
 <213> Artificial

<220>
 <223> primer

<400> 19
 gacaggatgc agaaggagat 20

<210> 20
 <211> 20
 <212> DNA
 <213> Artificial

<220>
 <223> primer

<400> 20
 tgcttgctga tccacatctg 20

IMATION

Revised Sequence Listing
10/580, 525

FLAT RATE ENVELOPE
FLAT RATE POSTAGE
REGARDLESS OF WEIGHT
DOMESTIC USE ONLY

EXTREMELY URGENT

Please Rush To Addressee

CALL 1-800-222-1811 FOR PICKUP OR TRACKING OF ALL YOUR PACKAGES



EXPRESS MAIL

UNITED STATES POSTAL SERVICE[®]

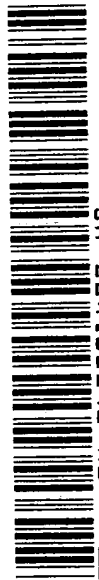


UNITED STATES POSTAL SERVICE[®]

CORPORATE

POSTAGE AND FE

www.usps



EV 749201497 US

Mailing Label
Label 11-F, April 2004



UNITED STATES POSTAL SERVICE[®]

Post Office To Addressee

ORIGIN (POSTAL SERVICE USE ONLY)				DELIVERY (POSTAL SERVICE USE ONLY)			
PO ZIP Code		Day of Delivery <input type="checkbox"/> Next <input type="checkbox"/> 2nd <input type="checkbox"/> 3rd Day		Time		Employee Signature	
Date Accepted		Scheduled Date of Delivery		Mo. Day		Employee Signature	
Mo. Day Year		Month Day		Mo. Day		Employee Signature	
Time Accepted <input type="checkbox"/> AM <input type="checkbox"/> PM		Scheduled Time of Delivery		Time		Employee Signature	
Flat Rate <input type="checkbox"/> or Weight		COD Fee		Time		Employee Signature	
lb. ozs.		Insurance Fee		Time		Employee Signature	
CUSTOMER USE ONLY		Total Postage & Fees		Time		Employee Signature	
METHOD OF PAYMENT:		Acceptance Emp. Initials		Time		Employee Signature	
Express Mail Corporate Acct. No.		Int'l Alpha Country Code		Time		Employee Signature	
X301897		Int'l Alpha Country Code		Time		Employee Signature	

FROM: (PLEASE PRINT)		TO: (PLEASE PRINT)	
PHONE		PHONE	
THOMAS, KAYDEN, HORSTMAYER, & RISLEY 100 GALLERIA PKWY SE STE 1750 ATLANTA GA 30339-5961		Commissioner for Patents Mail Stop: PCT (DO/E0/US) P.O. Box 1450 Alexandria, VA 22313-1450	

050508-1370 (Sae/cac)

PRESS HARD. YOU ARE MAKING 3 COPIES

CALL 1-800-222-1811 FOR PICKUP OR TRACKING OF ALL YOUR PACKAGES



UNITED STATES POSTAL SERVICE®



UNITED STATES POSTAL SERVICE®

POSTAGE AND FEES PAID

Label 108
May 2000

WWW.USPS.COM



EV 861590400 US

Mailing Label
Label 11-F, April 2004



UNITED STATES POSTAL SERVICE®

Post Office To Addressee

ORIGIN/POSTAL SERVICE USE ONLY	
PO ZIP Code	Day of Delivery <input type="checkbox"/> Next <input type="checkbox"/> 2nd <input type="checkbox"/> 3rd Day
Date Accepted	Scheduled Date of Delivery
Mo. Day Year	Month Day
Time Accepted	Scheduled Time of Delivery
<input type="checkbox"/> AM <input type="checkbox"/> PM	<input type="checkbox"/> Noon <input type="checkbox"/> 3 PM
Flat Rate <input type="checkbox"/> or Weight	Military <input type="checkbox"/> 2nd Day <input type="checkbox"/> 3rd Day
lbs. ozs.	Int'l Alpha Country Code
Postage \$	
Return Receipt Fee \$	
COD Fee \$	
Insurance Fee \$	
Total Postage & Fees \$	
Acceptance Emp. Initials	

CUSTOMER USE ONLY
METHOD OF PAYMENT:
Express Mail Corporate Acct. No. **X301897**

FROM: (PLEASE PRINT) **THOMAS, KAYDEN, HORSTMAYER, & RISLEY**
100 GALLERIA PKWY SE STE 1750
ATLANTA GA 30339-5961

PHONE **770 933 9500**

(State/call) **5088-1370**

DELIVERY (POSTAL USE ONLY)	
Delivery Attempt	Time <input type="checkbox"/> AM <input type="checkbox"/> PM
Mo. Day	Employee Signature
Delivery Attempt	Time <input type="checkbox"/> AM <input type="checkbox"/> PM
Mo. Day	Employee Signature
Delivery Date	Time <input type="checkbox"/> AM <input type="checkbox"/> PM
Mo. Day	Employee Signature

Federal Agency Acct. No. or
Postal Service Acct. No.

TO: (PLEASE PRINT) **Mail Stop: Pct (Dolehouse)**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

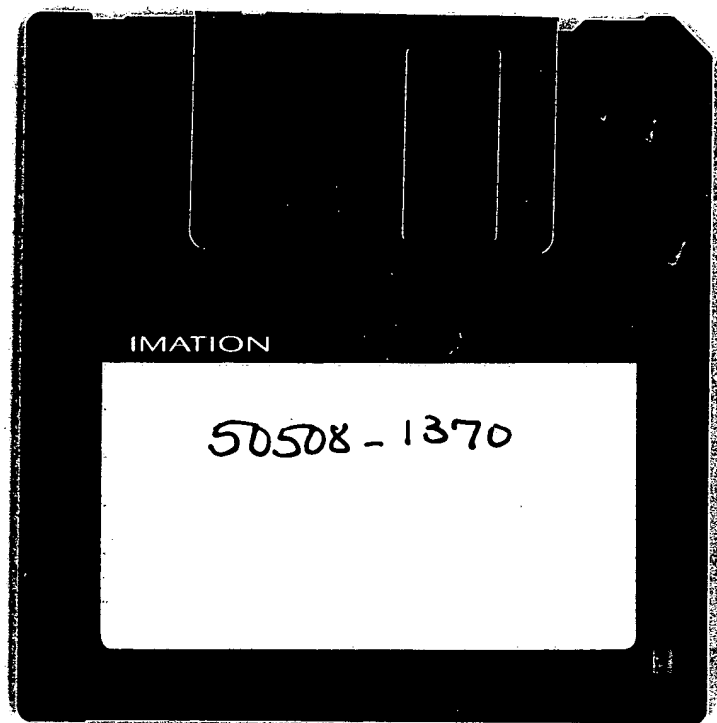
PHONE **any**

FOR PICKUP OR TRACKING: Visit www.usps.com or Call 1-800-222-1811

367/ 500 F:02 T:



This packaging is the property of the U.S. Postal Service and is provided solely for use in sending Express Mail. Misuse may be a violation of federal law.



Filed/Date Mailed: September 22, 2005
Applicant: Shim et al.
Docket #: 050508-1370
Title: CXCR4 Antagonists and Methods of Their Use
EM #: EV628221771US

Due Date: September 27, 2005
PCT #: PCT/US2004/009570
Parent Applic.:

**PATENT AND TRADEMARK OFFICE
(RECEIVING OFFICE) STAMP
HEREON ACKNOWLEDGES RECEIPT
OF THE BELOW IDENTIFIED
APPLICATION AND PAPERS:**

USPTO STAMP

10/550525

- Fees:
Pymt
Form
- ☒ Express Cert. of Mailing
 - ☒ Fees: \$440.00
 - ☐ Check
 - ☐ Dep. Acct:
 - ☐ Fee Calculation Sheet

- ☐ PCT/RO/101 () Pages
- ☐ PCT Application Consisting of:
 - Pages of Specification
 - Pages of Claims
 - 1 Page of Abstract
 - Pages of Dwgs.
 - ☐ Formal ☐ Informal

- ☐ Article 19 Amendment Including:
- ☐ Article 34 Amendment Including
 - ☐ Explanation of Replac. Pgs.
 - ☐ Replacement Pages ()
 - ☐ Other:

- ☐ Demand - Article 31 Including:
 - ☐ Demand for Chapter II
 - ☐ Copy of filed Art. 19/34 Amd.
 - ☐ Other:

- ☐ Response to Written Opinion
 - ☐ Explanation of Replac. Pgs.
 - ☐ Replacement Pages ()

- ☒ Other: Copy of Sequence Listing Ver.; PCT Request; Credit Card Fm.;
Preliminary Amendment; Seq. Listing Diskette
Person Mailing: LLO
Responsible Atty: CBL

- ☐ General Appointment
- ☐ Pow. of Att. ☐ Orig. ☐ Copy
- ☐ Response to Invitation to Correct Defects Including:
 - ☐ Replacement Pages ()
 - ☐ Specification ()
 - ☐ Claims ()
 - ☐ Abstract
 - ☐ Formal Drawings ()
 - ☐ Identify Serial Number
 - ☐ 1st Prior. ☐ 2nd Prior.
- ☐ Declaration/Power Attorney
 - ☐ Original ☐ Copy

- ☒ US Designated/Elected Office
 - ☒ 1st Subm. ☐ 2nd Subm.
 - ☐ Copy of Intern'l Application
 - ☐ Amend't to Claims ()
 - ☐ Copy Int'l SX Report
 - ☐ Oath/Declaration
 - ☒ Other: PCT/IPEA/402;
PCT/IB/301; Not. Re: Decl.

JC04 Rec'd PCT/PTO 22 SEP 2005